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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,054	06/24/2003	Dae-Ho Choo	61920219D1	1023

7590 08/04/2004

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EXAMINER	
RUDE, TIMOTHY L	
ART UNIT	**PAPER NUMBER**
2883	

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,054	CHOO ET AL.	
	Examiner	Art Unit	
	Timothy L Rude	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32 and 56* is/are pending in the application.

4a) Of the above claim(s) *21-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20030624*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because there are unknown characters illustrated in the left area of Figure 9B. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Election/Restrictions

2. Claims 21-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 200401115 and 20040520.

Applicant's election with traverse of Invention IX, (no species election, rather, Applicant admits inventions are not patentably distinct) drawn to an in-line conveying unit, in Paper No. 20040520 is acknowledged. The traversal is on the ground(s) that the combined inventions constitute a single apparatus and that the subject matter of all claims is sufficiently related that a search of any one Species would encompass a search for the remaining Species.

This is not found persuasive because mere automation of a known method of manufacture with a series of apparatus arranged in an in-line system is considered an obvious expedient (obvious combination of the subcombinations) and therefore

ultimately not patentable, e.g., patently rejectable under 35 U.S.C. 103(a) in view of the assembly line for Model T Ford automobiles. Also, each claimed apparatus (each subcombination) is a unique apparatus that has application in other art. Therefore a search for any one apparatus would not only require search in other sub-classes of class 349 but would in fact require substantial search in other classes as well (outside liquid crystal class 349).

However, Applicant states that none of the inventions defined in claims 1-32 and 56 are independent and distinct from each other; therefore, if one invention defined in claims 1-32 is unpatentable over the prior art, Applicant's admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention(s). Please note that base claim 1 contains limitations drawn to non-elected Inventions I, II, III, VII, and X that are considered to be not patentably distinct per Applicant's admission in Paper No. 20040520.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1 is presently drawn to a non-elected invention and is thereby subject to being withdrawn from consideration. Appropriate correction is required.

Please note that it is reasonable to expect Applicant will amend base claim 1 to read on the elected invention by adding recitations drawn to an in-line conveying unit

(MPEP 706.07(a)). Accordingly, exclusively those limitations drawn to elected invention IX need be examined. Examiner is unable to anticipate any other amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-20 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Adachi, Japanese patent application publication JP 56114928 A.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum (background, suitable though more costly method – affords better degasification of liquid crystal material). Please note numerous references teach these steps/apparatus.

FIG. 1A

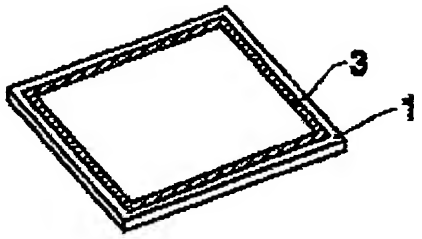


FIG. 1B

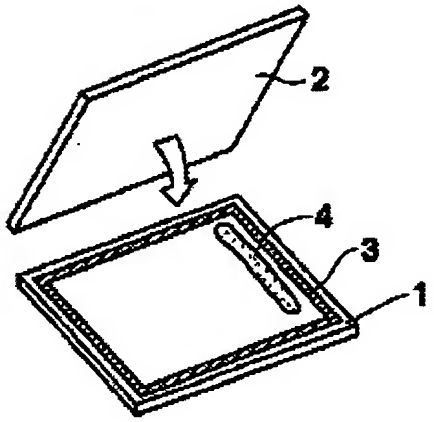


FIG. 1C

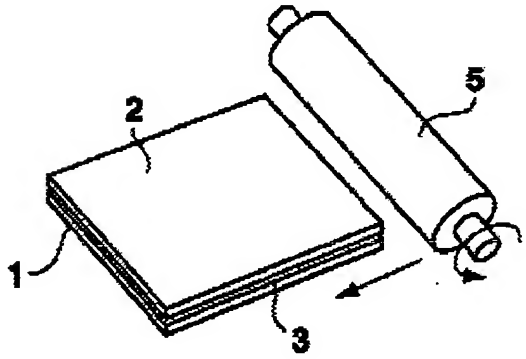


FIG. 2

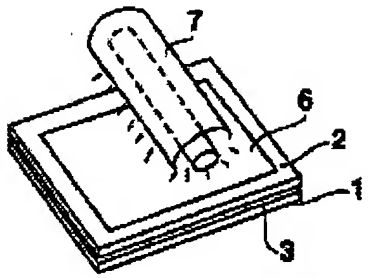


FIG. 3A

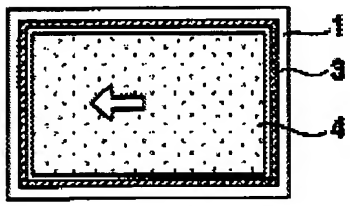
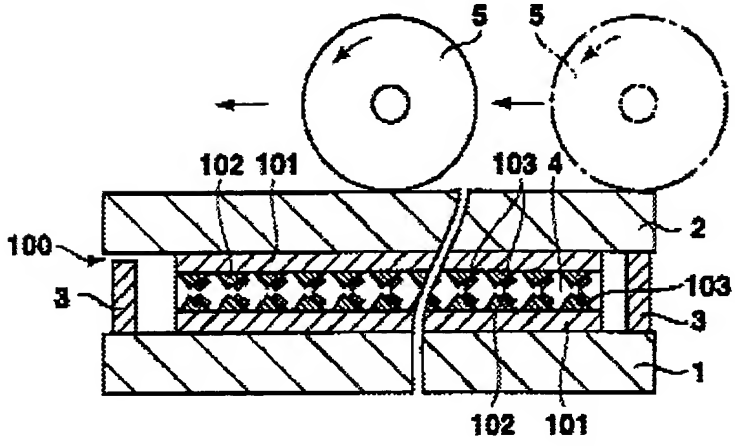
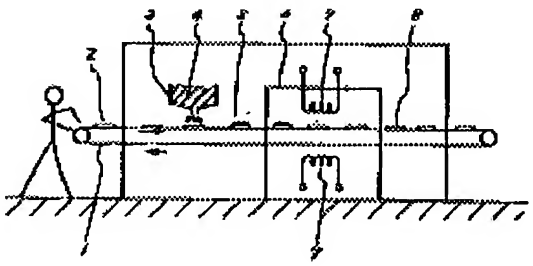


FIG. 3B



Kawasumi does not explicitly disclose the use of an in-line conveying unit.

Adachi teaches the use of a belt conveyor to provide a cleaner environment for the operators.



Adachi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a belt conveyor to provide a cleaner environment for the operators.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the belt conveyor of Adachi to provide a cleaner environment for the operators.

As to claims 2-20 and 56, Kawasumi in view of Adachi as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520. Therefore claims 2-10 and 56 are rejected on the bases that they are not patentably distinct from rejected base claim 1.

5. Claims 1-20 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Ogawa USPAT 6,680,759 B2.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum [background, suitable though more costly method – affords better degasification of liquid crystal material].

Kawasumi does not explicitly disclose the use of an in-line conveying unit.

Ogawa teaches (background of the invention, col. 1, lines 34-44, and in the description of the preferred embodiments, col. 8, lines 46-52) the use of a conveyer type inline manufacturing system as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

Ogawa is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a conveyer type inline manufacturing system as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the a conveyer type inline manufacturing system of Ogawa as a mainstream manufacturing apparatus to meet the demand for mass production of LCD display panels.

As to claims 2-20 and 56, Kawasumi in view of Ogawa as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520. Therefore claims 2-10 and 56 are rejected on the bases that they are not patentably distinct from rejected base claim 1.

Numerous example references cited but not applied are relevant to the instant Application. It is respectfully pointed out that examiner was unable to find any allowable subject matter in the instant Application. Examiner considers all claims obvious in view of well known and well documented methods of manufacture of liquid crystal displays in view of Ogawa, Adachi, and/or the automotive assembly line.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlr

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